

# **Notice of Allowability**

Application No.

10/526,952

Examiner

Dai A. Phuong

Applicant(s)

OBARA ET AL.

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--  
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1 ☒ This communication is responsive to 03/23/2006.

2 ☒ The allowed claim(s) is/are 1-4.

3 ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some\* c) ☐ None of the:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4 ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5 ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.

(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## **Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_

4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other \_\_\_\_\_.

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### DETAILED ACTION

#### *Reasons for Allowance*

1. The following is an examiner's statement of reasons for allowed:

Claims 1-4 are allowed.

Claim 4 is dependent on claim 3.

Regarding claim 1, the prior art record does not disclose nor fairly suggest a radio communication device comprising: an antenna common for transmitting and receiving for meeting a first frequency band and a second frequency band; a first transmitting unit for transmitting so as to meet the first frequency band; a first receiving unit for receiving so as to meet the first frequency band; **a first antenna sharing device for connecting an output part of the first transmitting unit to an input part of the first receiving unit**; a second transmitting unit for transmitting so as to meet the second frequency band; a second receiving unit for receiving so as to meet the second frequency band; **a second antenna sharing device for connecting an output part of the second transmitting unit to an input part of the second receiving unit**; a wave separator for connecting the antenna to the first antenna sharing device and the second antenna sharing device, wherein the wave separator is adapted to perform a filtering operation; a transmitting band switching signal generating unit for operating either of the first transmitting unit and the second transmitting unit to generate a transmitting band switching signal for switching a transmitting frequency band; a receiving band switching signal generating unit for operating either of the first receiving unit and the second receiving unit to generate a receiving band switching signal for switching a receiving frequency band; and a control unit for controlling the operations of

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**the first and second transmitting units, the first and second receiving units, the transmitting band switching signal generating unit and the receiving band switching signal generating unit.**

Regarding claim 2, the prior art record does not disclose nor fairly suggest a radio communication device comprising: a first antenna common for transmitting and receiving for meeting a first frequency band; a first transmitting unit for transmitting so as to meet the first frequency band; a first receiving unit for receiving so as to meet the first frequency band; **a first antenna sharing device for connecting an output part of the first transmitting unit to an input part of the first receiving unit;** a second antenna common for transmitting and receiving for meeting a second frequency band; a second transmitting unit for transmitting so as to meet the second frequency band; a second receiving unit for receiving so as to meet the second frequency band; **a second antenna sharing device for connecting an output part of the second transmitting unit to an input part of the second receiving unit;** a wave separator for connecting the first antenna or the second antenna to the first antenna sharing device and the second antenna sharing device; an antenna switching unit for switching the connection of the wave separator to the first and second antennas; a transmitting band switching signal generating unit for operating either of the first transmitting unit and the second transmitting unit to generate a transmitting band switching signal for switching a transmitting frequency band; a receiving band switching signal generating unit for operating either of the first receiving unit and the second receiving unit to generate a receiving band switching signal for switching a receiving frequency band; an antenna switching signal generating unit for delaying the receiving band switching signal by a

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**prescribed amount to generate an antenna switching signal for controlling the antenna switching unit; and a control unit for controlling the operations of the first and second transmitting units, the first and second receiving units, the transmitting band switching signal generating unit and the receiving band switching signal generating unit.**

Regarding claim 3, the prior art record does not disclose nor fairly suggest a radio communication device comprising: a first antenna common for transmitting and receiving for meeting a first frequency band; a first transmitting unit for transmitting so as to meet the first frequency band; a first receiving unit for receiving so as to meet the first frequency band; **a first antenna sharing device for connecting an output part of the first transmitting unit to an input part of the first receiving unit;** a second antenna common for transmitting and receiving for meeting a second frequency band; a second transmitting unit for transmitting so as to meet the second frequency band; a second receiving unit for receiving so as to meet the second frequency band; **a second antenna sharing device for connecting an output part of the second transmitting unit to an input part of the second receiving unit;** an external connector part for connecting an external antenna; an antenna switching unit for switching the connection of the first antenna, the second antenna and the external connector part to the first and second antenna sharing devices; a transmitting band switching signal generating unit for operating either of the first transmitting unit and the second transmitting unit to generate a transmitting band switching signal for switching a transmitting frequency band; a receiving band switching signal generating unit for operating either of the first receiving unit and the second receiving unit to generate a receiving band switching signal for switching a receiving frequency band; an antenna

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switching signal generating unit for delaying the receiving band switching signal by a prescribed amount to generate an antenna switching signal for controlling the antenna switching unit; and a control unit for controlling the operations of the first and second transmitting units, the first and second receiving units, the transmitting band switching signal generating unit, the receiving band switching signal generating unit and the antenna switching unit.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen M Duc can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong  
AU: 2617  
Date: 03-30-2006

  
ELISEO RAMOS-FELICIANO  
PRIMARY EXAMINER